

Media seen as interface between body and event leads automatically to questions about perception and therefore to the role of the observer. This relation has moved all the more into focus since the beginning of the twenty first century and the permanent ubiquity. Where comes that necessity of being constantly connected with media? To which point we are getting unable to simply use our body to experience the world? How the act of perception has changed through the overall access to media? The practice to see reality the more and more through a screen increases the disconnection to it in a way that perceiving the world through permanent virtual reality might be only one step away. Is it by now an inevitable process that the more we are using media, the more we assimilate a practice that separates us from the awareness about its omnipresence and that we all the more become addicted to its illusion?

Having discussed Foucault's *Discipline and Punish*, Gilles Deleuze's *Postscripts on the Societies of Control* and Brian Holme's *Future Map*, the introduction in the thematic of the power of surveillance and the influence on the society led to a discussion about media which is rather discouraging in order to see a positive aspect of it. One of the first screenings during the reading and writing seminar in the first trimester was the documentary *We Live in Public* that showed the situation of the linking to the whole world through the Internet. The theme of exhibitionism and the role of the audience were introduced and raised the question where the need of being part of the spectacle comes from. Why do we change our behavior under observation and who bear the blame for the actions? The following documentary *Taxi to the Dark Side* links to the Stanford Prison Experiment where two groups of man received either the role of the guard or the role of the prisoner. It is impressive to realize how human behavior changes under the order of an authority and how personal responsibility can be completely switched off in a state of emergency. All those insights give a relatively gloomy perspective of humankind. Likewise does the last-viewed screening *Enjoy Poverty* from the Dutch artist Renzo Martens. The film shows a form of medial self-reference¹. It questions with a certain mise en abyme the role of the media itself representing the misery in Africa. The audience is put in the focus and gain awareness of its own role. Likewise in the chapter *Staging of the Spectator* from the book *Loving Big Brother*, the author John E. Mc Grath treats the role of the spectator in specific art works and shows how his invisibility is revealed in replacing him to the centre of the scene. Like for instance in Bruce Naumans *Going Around the Corner*. The role of the audience therefore gains on relevance and leads me to Jonathan Crary's *Techniques of the Observer*. His text serves as an interesting transition to my personal research into perception.

Recapitulation of *Techniques of the Observer*

Jonathan Crary refers to the vision in the nineteenth century and presents different optical devices, the theory of afterimages and other visual phenomena.

The text starts with the introduction of the retinal afterimage and Goethe's investigation of it in his *Theory of Colors*. The afterimage is linked to a certain temporality and allows a perception uncoupled from an external referent, it is an experience in the absence of an input and can be seen therefore as an autonomous and subjective vision. Schelling sees the process as a temporal overlapping of images and in Hegel's Phenomenology it is about a dialectical account of perception in which appearance negates itself to become something other. Perception is hence nothing static, it is much more a continuous process, a flow of temporally loose contents. This afterimage became a crucial means by which the intensity and duration of retinal stimulation could be measured. Jan Purkinje continued the research and figured out how long the afterimages lasted. He was the first who classified different types of afterimages.

In the 1820s the study of afterimages led to the invention of a number of related optical devices and techniques, originally supposed to serve scientific observation, they soon became forms of popular entertainment. What they had all in common was the insight that perception was not instantaneous and included a detachment between the eye and the object. The first example given is the *Thaumatrope* from Dr. John Paris in 1825, a cardboard panel with two different pictures on each side, which merge together when turning the slice quickly enough so that the eye is able to make the combination. This device shows how an image lasts for a part of a second and is not erased before the eye see what figures on the backside. In the same year Peter Mark Roget noticed that during an

¹ <http://www.romanistik.de/aktuelles/newsartikel/article/tagungsbericht-d-int-symposiums-metareferenz-in-den-kuensten-und-medien/>

observation through a fence, spokes of a wheel seem to be either motionless or be turning even backward. That was an important discovery for the creation of different effects of motion, depending like in the example of Roget, on the relation of the observer's position to an interfering screen. Crary writes furthermore about the finding that images do not simply dissolve uniformly but go through a number of states before vanishing, for that reason the *theory of persistence* of vision came out. When several objects are presented to the eye one after the other in very brief intervals and sufficiently close together one will believe that a single object is regularly changing form and position. The *Phenakistiscope* as well as the *Zootrope* worked in that way with the retinal persistence and a series of images results to appear in constant motion in front of the eye, often a simulated action sequence of dancers or other acrobats, it was a form of an illusory reality that the public consumed. The different observations with the devices and the recovering of the persistence of vision showed that the experience of temporality itself is receptive to external technical manipulations. In that time the factories served for studies of new form of movements. After Benjamin technology has put *the human sensorium* to a complex kind of training and has built a *new kind of observer*. This production of the observer in the nineteenth century coincided with new procedures of discipline and regulation.

Another phenomenon that changes the position of the observer was the diorama. An installation that contrasts to the static panorama where the audience still had certain autonomy to move and to perceive the painting on the wall. In the case of the diorama the observer gets immobile in a mechanical construction of optical experience. Besides that limitation, the diorama needs the audience for an image to appear, contrary to the camera obscura and the panorama where the image is constantly present and not just constructed in the mind of the observer.

In the next paragraph Crary treats the invention of the *Stereoscope* and the knowledge about the perception of space by binocular disparity, the angular differential of the optical axis and fibers leading from the retina to the brain cross each other, carrying half of the nerves from each retina to each side of the brain. The human organism has therefore the capacity to synthesize retinal disparity into a single uniform image and makes two distinct views appear as one. There is never really a stereoscopic image, it is always a construction of the observer's experience between two images. The whole perception is formed in the mind. Important is the proximity of the object to the viewer to reinforce the three-dimensional effect. The author writes that no other form of representation in the nineteenth century had so assembled the real with the optical than the stereoscope had done and he notices that it is impossible for us today to comprehend what it looked like for a nineteenth century viewer. Then he takes a closer look at the reality effect, the impression of depth and the disturbing tangibility. The distance between the front and the back seems unnatural, the stereoscopic image seems layered, which evokes an uncertainty about the distance between the separating forms. There are some similarities between the stereoscope and the classical stage design for the fact that the volume is perceived as flat and the different areas have no optical unity, no coherence. There is a disorder and Crary uses the comparison to Deleuze's idea of the empty, so called *Riemann-space* where the linkage between each surrounding is not given. A range of nineteenth century paintings also manifest some of these features of stereoscopic imagery and use the effect of disconnected areas and cutout flatness. The device then finds its way to a bigger public and includes pornographic imagery that uses the simulation of tangible three dimensionality. Benjamin is mentioned here and his ideas of the need to take possession of the object, which seems in that case to be closer than ever to the viewer because there is no mediation between the eye and the image. Crary points out that the stereoscopic had deleted the point of view. The relation of the observer to an image is no longer the relation to an object quantified in relation to a position in space, but rather to two dissimilar images whose positions simulate the anatomical structure of the observer's body. The illusion of depth was therefore a subjective event, which merged the observer together with the device. This relation between the eye and the optical apparatus refers to the functional interaction of body and machine and raises questions about the status of a tool and if nature of man is to be a tool.

The author ends the chapter with the introduction of the phantasmagoric and the dissimulation of the production that allows the outer appearance to create a perfect illusion. Crary emphasizes that the extinction of the operation of the machine together with the democratization of techniques of illusion transform each observer into simultaneously the magician and the deceived.²

This statement seems to make the perfect link into the twenty first century and our relation with media as mentioned in the introduction above. The nineteenth century proves to be a very rich era to investigate further on perception and how knowledge in science and technology constantly creates a new contemporary observer adapted to the circumstances at his time.

² Crary Jonathan (1990): *Techniques of the observer. On vision and modernity in the nineteenth century*